

WESTERN SYDNEY
UNIVERSITY



POSTGRADUATE STUDY



Master of Information and
Communications Technology
(Research)

MASTER OF INFORMATION AND COMMUNICATIONS TECHNOLOGY (RESEARCH)

GLOBAL LEADERSHIP IN RESEARCH AND DEVELOPMENT

Master of Information and Communications Technology (Research) course exposes students to advanced topics and research in ICT. This course is comprised of a coursework component that is followed by a full-time-equivalent year of supervised research training. The primary objective of this course is to provide students with an opportunity to develop research skills appropriate to the ICT discipline. This course provides a pathway to PhD study by engaging students in research projects within the university or in collaboration with an external organisation.

Accredited Program



COURSE SUMMARY

Course: Master of Information and Communications Technology (Research)

Campus: Parramatta Campus

Course Code: 8112 (MICTRES)

Duration: 2.5 years

Mode: Full-Time

Tuition Fees: \$28,720 per year

Intakes: February and July

CRICOS code: 092789G

CAREER OPPORTUNITIES

MICT (research) course is a customised research pathway to PhD study. It provides extensive research training for students who want to continue their study in a PhD course. In addition, graduates from this course will be able to fulfil the skill requirements of the following roles (but not be limited to): ICT consultant; research assistant; university teaching assistant; ICT architect; project manager; systems analyst.

PROFESSIONAL ACCREDITATION

Western Sydney University has a long history of providing well-designed degrees in ICT that are accredited at the professional level by the Australian Computer Society (ACS). MICT (Research) course is fully accredited at the professional level by ACS.

ADMISSION REQUIREMENT

To be eligible for admission, you must have successfully completed a Bachelor degree, Bachelor Honours degree or a Masters degree in any discipline.

To be eligible for up to 40 credit points of advanced standing, you must have successfully completed:

- An undergraduate degree in Information and Communication Technologies (ICT), Computing or Information Systems; or
- an undergraduate degree in any discipline and a Graduate Certificate or Graduate Diploma in Information and Communication Technologies (ICT).

Advanced standing from foundation units are subject to approval by the relevant Director of Academic Programs (DAP).

Applicants seeking admission on the basis of work experience MUST support their application with a Statement of Service for all work experience listed on the application

COURSE CONTENT

The MICT (Research) has two components: coursework and research. The coursework component allows students to get familiarised with research techniques as well as advanced topics and technologies in the ICT discipline. The duration of the coursework component varies based on previous study disciplines and qualification levels of the student. At the end of the first year, students will have adequate research knowledge and skills to commence a research project in their interested ICT area. The research component for the second year is an 80-CP unit (Higher Degree Research Thesis). This unit would involve a substantial research project with a supervisor within a research group/lab at WSU or in collaboration with an external organisation.

RESEARCH PROJECT

All students in the MICT (Research) course will enrol in the HDR Thesis unit with 80cp in the second year. This year long unit provides an opportunity for masters students to carry out a comprehensive investigation and practical work on a cutting edge research topic in the area of ICT. Students are encouraged to select topics they envisage to be of value to their future careers. Students will undertake individual research-intensive project-based study under the guidance of an academic supervisory panel. Under supervision, each student needs to further critically review and appraise current literature, and conduct research activities to carry out the research plan. At the end, all students need to write a master thesis for the undertaken research and present their major research findings. Students are highly encouraged to publish peer-reviewed papers from outcome of their research.

STUDY SEQUENCE

YEAR 1

AUTUMN SESSION

Systems Analysis and Database Management Systems

Programming Proficiency

Advanced Topics in User System Interaction

Professional Practice and Communication

2H Session

Research Design 1: Theories of Enquiry

SPRING SESSION

Network Technologies

Advanced Topics in ICT

One elective from List 1, List 2 or List 3

YEAR 2

1H Session

Research Design 2: Practices of Research

AUTUMN SESSION

IT Project Management

Big Data

One elective from List 1, List 2 or List 3

2H Session

Higher Degree Research Thesis – Information Technology

YEAR 3

Higher Degree Research Thesis – Information Technology

The Master of Information and Communications Technology (Research) operates on the basis of 1H (first half) and 2H (second half) sessions.

These sessions are longer than the usual undergraduate Autumn, Spring and Summer sessions and it is important that you are available to attend classes and other events during the full 1H and 2H academic dates.

LIST 1 – FOUNDATION UNITS

Advanced Topics in User System Interaction

Content Management Systems and Web Analytics

IT Project Management

Network Technologies

Programming Proficiency

Systems Analysis and Database Management Systems

Systems and Network Security

Web Technologies

LIST 2 – SPECIALISED UNITS

Advanced Health Classifications and Coding

Advanced Healthcare Data Environments

Advanced Healthcare Software and Systems

Advanced Mobile Robotics

Advanced Robotics

Advanced Topics in Artificial Intelligence

Advanced Topics in ICT

Advanced Topics in Networking

Big Data

Cloud Computing

Data Science

Genomic Data Science

Information Security Management

Internet of Things

Mobile Computing

Modern Software Architectures

Multimedia Communication Systems

Network Management

Predictive Analytics

Programming for Data Science

Social Media Intelligence

Software Testing and Automation

The Nature of Data

Visualisation

Web Engineering

Wireless Networking

LIST 3 – MULTIDISCIPLINARY UNITS

Contemporary People Management

Economics

Financial Reports for Decision Making

Governance, Ethics and Social

Entrepreneurship

Strategic Business Management

The Contemporary Business Environment

Understanding Contemporary Organisations

WHY POSTGRADUATE STUDY AT WESTERN SYDNEY?

You've come a long way. Go further.

Located in the heart of one of Australia's fastest growing economic regions, Western Sydney University offers unlimited potential to students with the drive, ambition and will to succeed.

Ranked amongst the top two per cent of universities on the globe, Western Sydney is a world-class university with a growing international reach and reputation for academic excellence and impact-driven research.

To take your career to the next level, you need more than classrooms, more than theory. That's why we offer a combination of on campus learning environments, with real-life, on-the-ground, hands-on opportunities for skill development in professional and community settings. We value academic excellence, integrity and the pursuit of knowledge.

We equip our students with the means to do more than just advance their careers. We are unlocking the potential of the next generation of global citizens, leaders and change-makers.

PROGRESS. UNLIMITED.

HOW TO APPLY

International students apply direct to Western Sydney University.

westernsydney.edu.au/international/apply

Applicants must meet minimum academic entry and English proficiency requirements. westernsydney.edu.au/international/entryrequirements

International students are also required to have genuine access to sufficient funds while studying in Australia. Funds should be sufficient to contribute to the cost of travel, tuition, school costs for any dependants, and living costs.

westernsydney.edu.au/international/fees

DISCLAIMER

Western Sydney University reserves the right to withdraw or vary courses listed within this publication. In the event that the course or courses are to be changed, or in the event of cancellation, applicants will be advised to the address specified on their application.

CRICOS provider code: 00917K

FURTHER INFORMATION

For further details about courses, including course structure, unit descriptions, work placement requirements (if applicable), visit handbook.westernsydney.edu.au

For information about studying at Western Sydney University, including assessment methods, course progression and attendance requirements, accommodation options, working and living in Australia, visit westernsydney.edu.au/studyandlife



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#1 UNI
IN SYDNEY FOR EMPLOYER
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5 STARS
FOR FACILITIES, INCLUSIVENESS,
INNOVATION AND TEACHING*

*Times Higher Education Rankings 2018

**Employer Satisfaction Survey 2018 (85.6% satisfaction rating)

^QS Top Universities: QS Stars University Ratings 2018

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